# 04 - STRUCTURES INDEX OF DRAWINGS

NUMBER	
S-1	BRIDGE DESIGN INDEX OF DRAWINGS
S-2	BRIDGE INFORMATION TABLE
S-3	ASPHALTIC PLUG EXP JOINT SYSTEM DETAILS
S-4	PARAPET JOINT DETAIL

BRIDGE NO.	CROSSING	TOWN
00268	I-395 OVER LEFFINGWELL ROAD	MONTVILLE
00271	I-395 OVER STATE ROUTE 82	NORWICH
00275	I-395 OVER OTROBANDO AVENUE	NORWICH
00277	I-395 OVER STATE ROUTE 642	NORWICH

NOTE: FOR BRIDGE LOCATIONS SEE HIGHWAY PLANS.

THE DESIGN APPEARS TO CONFORM TO APPLICABLE CRITERIA. APPROVAL IS NOT TO BE CONSTRUED TO MEAN THAT ALL ASPECTS OF THE DESIGN HAVE BEEN PERSONALLY CHECKED BY THE UNDERSIGNED.

TRANSPORTATION PRINCIPAL ENGINEER

-			-	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE CHECKE	NER/DRAFTER:  JPC	CONNECTICAL SECTION OF THE CONNECTICAL SECTION O	SIGNATURE/ BLOCK:	PROJECT TITLE:  PAVEMENT PRESERVATION	MONTVILLE & NORWICH	PROJECT NO. <b>85-142</b>
-		•	<u>-</u> -	SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE	JRH	TRANSPORT	OFFICE OF ENGINEERING	ON I-395	DRAWING TITLE:	DRAWING NO. <b>S-1</b>
-		•	-	OF WORK WHICH WILL BE REQUIRED.	SCALE AS NOTED	DEPARTMENT OF TRANSPORTATION	AFFROVED BI.		BRIDGE DESIGN	SHEET NO. 04.01
RE\	/. DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 11/20/2012		Filename:\85-142_DRAWING_NO_S-1_INDEX_OF_DRAWINGS.dgn	1 iset		INDEX OF DRAWINGS	07.01

BRIDGE INFORMATION FOR REPLACEMENT OF EXISTING EXPANSION JOINTS										
			BRIDGE NOS.							
			00268		00271		00275		00277	
	I-395 MILE POINT		.26	11.08		13.85		14.23		
EMENT	* ABUTMENT NO. 1	DETAIL A DETAIL A		DETAIL A		DETAIL A				
REPLAC	THERMAL MOVEMENT RANGE (IN.)	1	/2	3	/4	1	/2	3/4		
JOINT REPLACEMENT LOCATION AND DETAIL	* ABUTMENT NO. 2	DETA	AIL A	DETA	AIL A	DETA	AIL A	DETAIL A		
L J	THERMAL MOVEMENT RANGE (IN.)	0 3/4		0		0				
	SOUTHBOUND/NORTHBOUND	S.B.	N.B.	S.B.	N.B.	S.B.	N.B.	S.B.	N.B.	
GEOMETRY	NUMBER OF TRAVEL LANES	2	2	3	2	2	2	2	2	
BRIDGE GEOI	** CURB - CURB WIDTH (FT) TOTAL BRIDGE WIDTH (EXCLUDING MEDIAN)	37	37	49	38	37	37	47	37	
BRI	*** SKEW (DEG)	35		4		0		28		
ACE	PARAPET	NO	NO	DETA	AIL E	NO	NO	DETA	AIL E	
REPL/ JOINT	MEDIAN	DETAIL	_ C & D	DETAIL	_ C & D	DETAIL	_ C & D	DETAIL	_ C & D	
INSTALL MEMBRANE ADJACENT TO EITHER ONE OR BOTH SIDES OF THE PROPOSED ASPHALTIC PLUG JOINT		ONE	SIDE	ONE SIDE		ONE SIDE		ONE	SIDE	
BRIDGE MILLING AND PAVING DEPTHS	FINE MILLING DEPTH	1.	5"	1.5"		1.5"		1.	5"	
BRII MILL AN PAV DEP	HMA S0.5 DEPTH	2.	0"	2.	0"	2.0"		2.0"		

#### **GENERAL NOTES**

- 1. FOR BRIDGE LOCATIONS SEE HIGHWAY PLANS.
- 2. FOR "DETAIL A" SEE DRAWING NO. S-3.
- 3. FOR ALL BRIDGE PARAPET JOINT AND MEDIAN JOINT TREATMENT DETAILS, SEE DRAWING NO. S-4.
- 4. THE DEPTH OF PROPOSED ASPHALTIC PLUG JOINT IS ESTIMATED TO BE, ON AVERAGE,  $3\frac{1}{4}$ ".

- \* NOTE: INTERSTATE 395 IS A SOUTH-TO-NORTH ROUTE. ABUTMENT NO.1 = SOUTHERN-MOST ABUTMENT.
- \*\* MEASURED PERPENDICULAR TO CENTERLINE OF ROADWAY

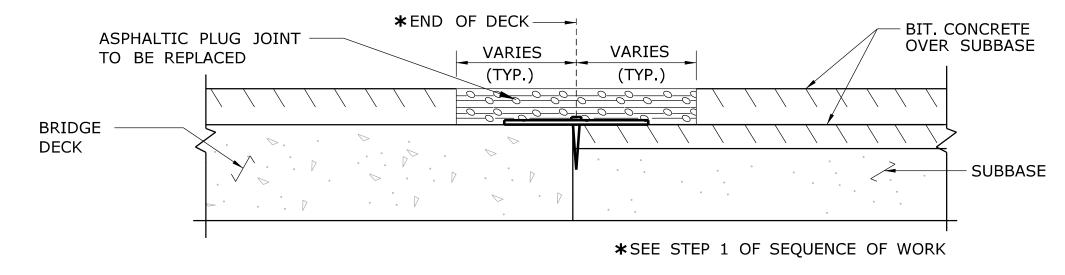
\*\*\* MEASURED FROM A LINE PERPENDICULAR TO CENTERLINE OF ROADWAY

ASPHALTIC PLUG EXPANSION JOINT SYSTEM NOTES

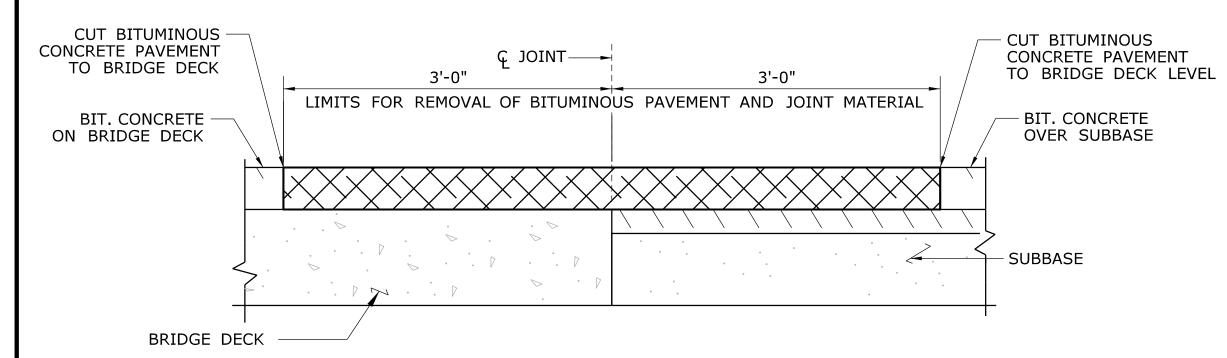
- 1. A BRIDGING PLATE SHALL BE USED TO SPAN THE GAP BETWEEN TWO DECK ENDS OR THE JOINT BETWEEN A DECK END AND A CONCRETE APPROACH SLAB.
- 2. DISCONTINUE THE INSTALLATION OF THE BACKER ROD, BRIDGING PLATE AND LOCATING PIN WHERE THE APPROACH SLAB IS DISCONTINUED (TYPICALLY IN THE ROADWAY SHOULDERS). SEE ASPHALTIC PLUG EXPANSION JOINT SYSTEM SPECIAL PROVISION.
- 3. NEW STEEL BRIDGING PLATES SHALL HAVE A MINIMUM THICKNESS OF  $^1/_4$ ". FOR JOINT OPENINGS THAT EXCEED 3" A  $^3/_8$ " THICK BY 12" WIDE PLATE WILL BE REQUIRED.
- 4. NO BRIDGING PLATE SHALL BE USED AT THE FOLLOWING LOCATIONS: A. JOINT BETWEEN A DECK END AND A CONCRETE APPROACH PAVEMENT B. WHERE A BRIDGE DECK END MEETS A BITUMINOUS APPROACH PAVEMENT
- 5. SAW-CUTS MADE 3' EACH SIDE OF CENTERLINE OF JOINT WILL BE PAID AS "CUT BITUMINOUS CONCRETE PAVEMENT".
- 6. THE REMOVAL OF ALL EXISTING JOINT SYSTEMS AND BITUMINOUS CONCRETE WITHIN THE LIMITS SHOWN TO BE INCLUDED FOR PAYMENT UNDER THE ITEM "REMOVAL OF HMA WEARING SURFACE".
- 7. INSTALLATION OF MEMBRANE WITHIN THE LIMITS SHOWN TO BE PAID UNDER THE ITEM, "MEMBRANE WATERPROOFING (SHEET) (TORCH APPLIED)"
- 8. CRACK SEALANT PLACED ALONG VERTICAL FACES OF THE SAW-CUT PAVEMENT TO BE PAID UNDER THE ITEM, "JOINT AND CRACK SEALING OF BITUMINOUS CONCRETE PAVEMENT".
- 9. THE FURNISHING AND PLACING OF HMA S0.375 TO BE INCLUDED FOR PAYMENT UNDER THE ITEM "HMA S0.375".
- 10. SAW-CUTTING AND REMOVAL OF PAVEMENT FOR JOINT INSTALLATION TO BE INCLUDED UNDER FOR PAYMENT THE ITEM, "ASPHALTIC PLUG EXPANSION JOINT SYSTEM".
- 11. CLOSED CELL BACKER ROD DIAMETER SHALL BE DETERMINED AFTER MEASURING THE JOINT OPENING. THE ROD SHALL BE 25% LARGER THAN THE JOINT OPENING.
- 12. ASPHALTIC PLUG EXPANSION JOINT SYSTEMS MAY BE INSTALLED ONLY WITHIN THE TEMPERATURE RANGE SPECIFIED IN THE SPECIAL PROVISION "ASPHALTIC PLUG EXPANSION JOINT SYSTEM". REFERENCE THE RANGE OF THERMAL MOVEMENT FOR THE SELECTED JOINT PRODUCT IN THE TABLE FOR "ALLOWABLE BRIDGE SUPERSTRUCTURE SURFACE TEMPERATURE RANGE" IN THE SPECIAL PROVISION

QUANTITIES								
ITEM	UNIT	AMOUNT						
ASPHALTIC PLUG EXPANSION JOINT SYSTEM	C.F.	320						
REMOVAL OF HMA WEARING SURFACE	S.Y.	215						
CUT BITUMINOUS CONCRETE PAVEMENT	L.F.	730						
REPLACE JOINT SEAL	L.F.	355						
WATERPROOFING MEMBRANE (SHEET) (TORCH-APPLIED)	S.Y.	90						
JOINT AND CRACK SEALING OF BITUMINOUS CONCRETE PAVEMENT	L.F.	705						
HMA S0.375	TON	85						

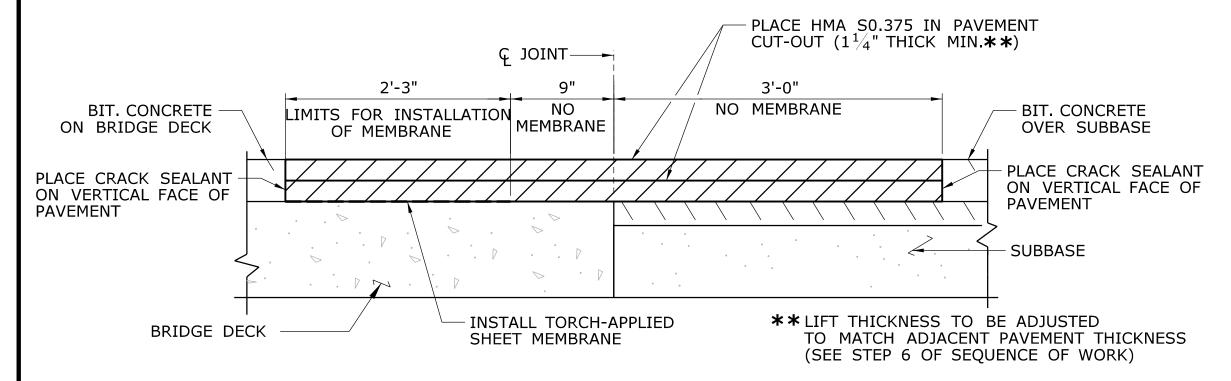
-		-	THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE CHECKED BY:	SIN CONNECTICION DE LA CONNECTIO	SIGNATURE/ BLOCK:	PROJECT TITLE:  PAVEMENT PRESERVATION	MONTVILLE & NORWICH	PROJECT NO. <b>85-142</b>
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-			OF WORK WHICH WILL BE REQUIRED.	DEPARTMENT OF TRANSPORTATION	That		BRIDGE INFORMATION TABLE	SHEET NO. 04.02
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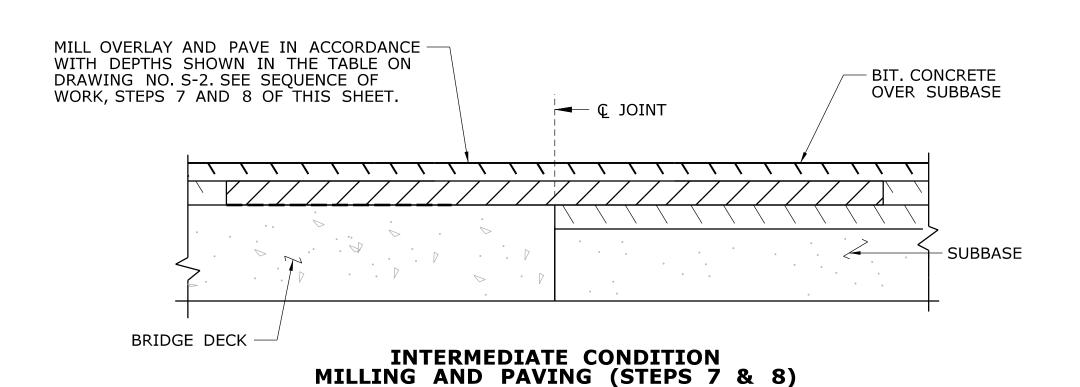
#### **EXISTING**



### INTERMEDIATE CONDITION JOINT AND PAVEMENT REMOVAL (STEPS 1-3)



## INTERMEDIATE CONDITION PLACEMENT OF PAVEMENT IN JOINT CUTOUT (STEPS 4-6)

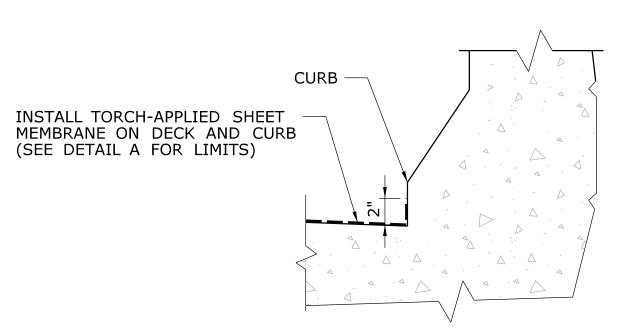


# SAW-CUT EDGES OF JOINT PRIOR TO REMOVAL OF BITUMINOUS CONCRETE OVERLAY 10" (TYP.) BRIDGE DECK SUBBASE

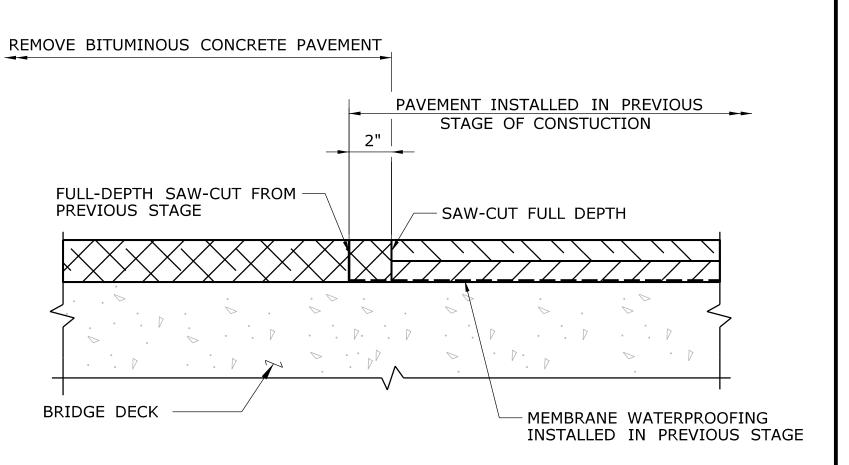
#### FINAL CONDITION (STEPS 9 & 10)

#### **SEQUENCE OF WORK**

- TEP 1: CONTRACTOR SHALL PERFORM AN EXPLORATION AT THE GUTTERLINE TO DETERMINE THE DEPTH OF PAVEMENT AND THE LOCATION OF THE DECK END (CENTERLINE OF PROPOSED JOINT) BEFORE PROCEEDING TO STEP 2.
- STEP 2: SAW-CUT BITUMINOUS PAVEMENT ON BOTH SIDES OF EXISTING JOINT FOR PAVEMENT CUT-OUT. EACH SAW CUT LINE SHALL BE 3'FROM THE CENTERLINE OF THE EXISTING JOINT. SAW-CUT SHALL NOT DAMAGE EXISTING DECK.
- STEP 3: REMOVE EXISTING PAVEMENT MATERIAL AND JOINT MATERIAL WITHIN THE LIMITS SHOWN.
- STEP 4: INSTALL MEMBRANE TO THE TOP OF DECK WITHIN THE LIMITS SHOWN.
- TEP 5: PLACE CRACK SEALANT ON VERTICAL EDGE OF PAVEMENT ALONG SAW-CUT LINES.
- TEP 6: PLACE HMA S0.375 IN THE JOINT CUTOUT. (REFER TO NOTICE TO CONTRACTOR APJ BITUMINOUS CONCRETE PLACEMENT REQUIREMENTS)
- STEP 7: MILL ROADWAY AND BRIDGE PAVEMENT TO SPECIFIED DEPTHS.
- STEP 8: PAVE TOP COURSE ON ROADWAY AND BRIDGE.
- STEP 9: CUT PAVEMENT FULL DEPTH, 10" EACH SIDE OF CENTER OF JOINT, AND REMOVE ALL PAVEMENT MATERIAL BETWEEN SAW-CUTS.
- STEP 10: INSTALL PROPOSED ASPHALTIC PLUG EXPANSION JOINT SYSTEM.

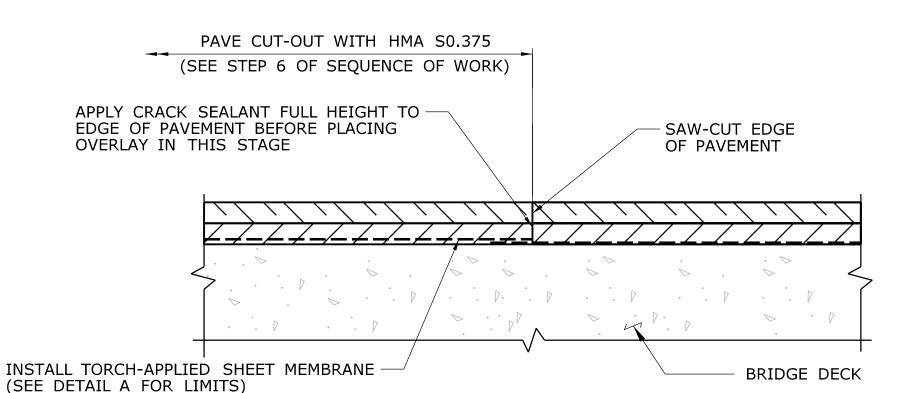


# SECTION AT GUTTERLINE AT PAVEMENT CUT OUT N.T.S.



# SECTION - INITIAL LONGITUDINAL STAGE CONSTRUCTION JOINT IN PAVEMENT CUTOUT

N.T.S.



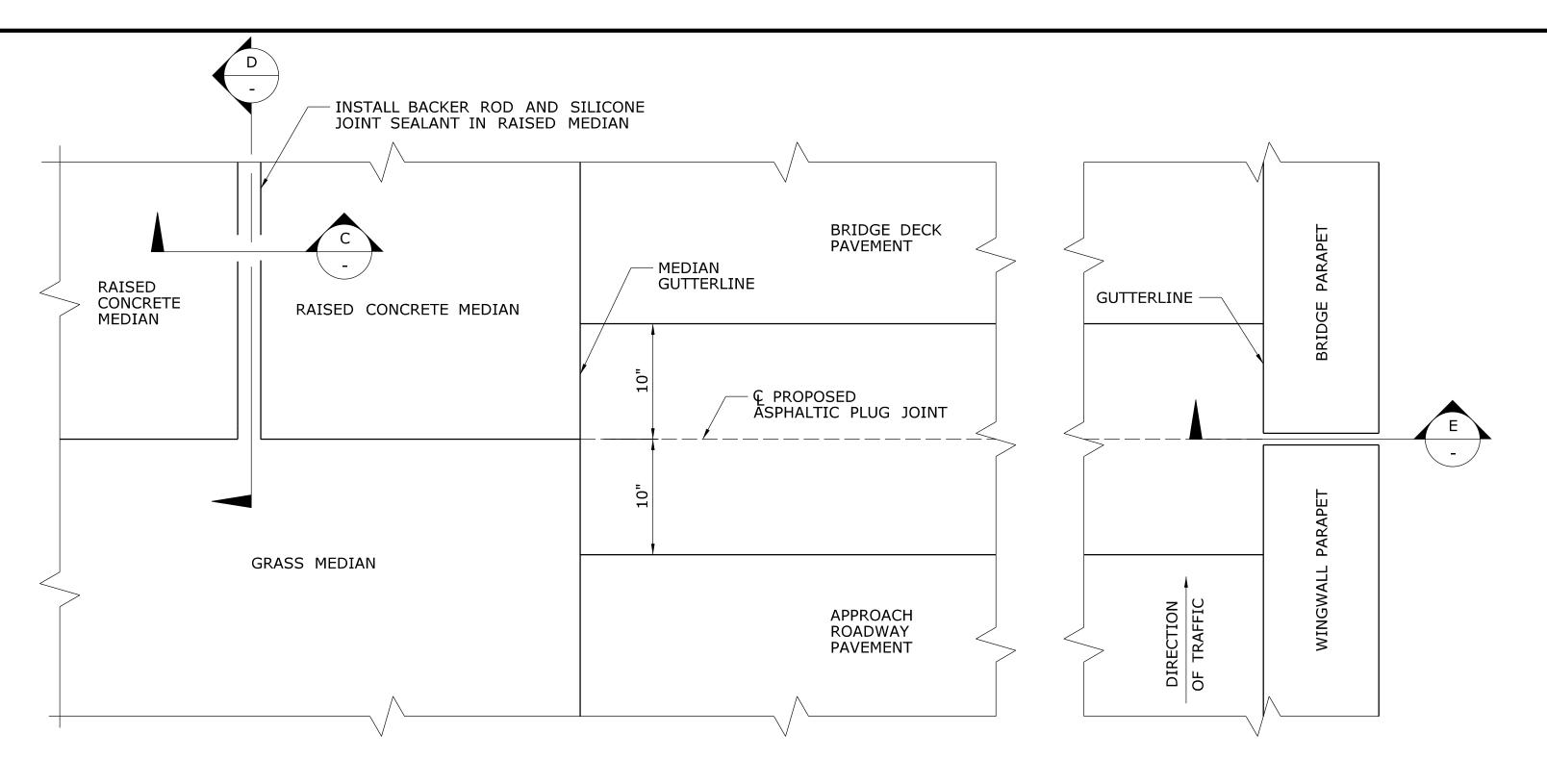
# SECTION - FINAL LONGITUDINAL STAGE CONSTRUCTION JOINT IN PAVEMENT CUTOUT

N.T.S.

# DETAIL A - PROPOSED ASPHALTIC PLUG JOINT WITHOUT BRIDGING PLATE

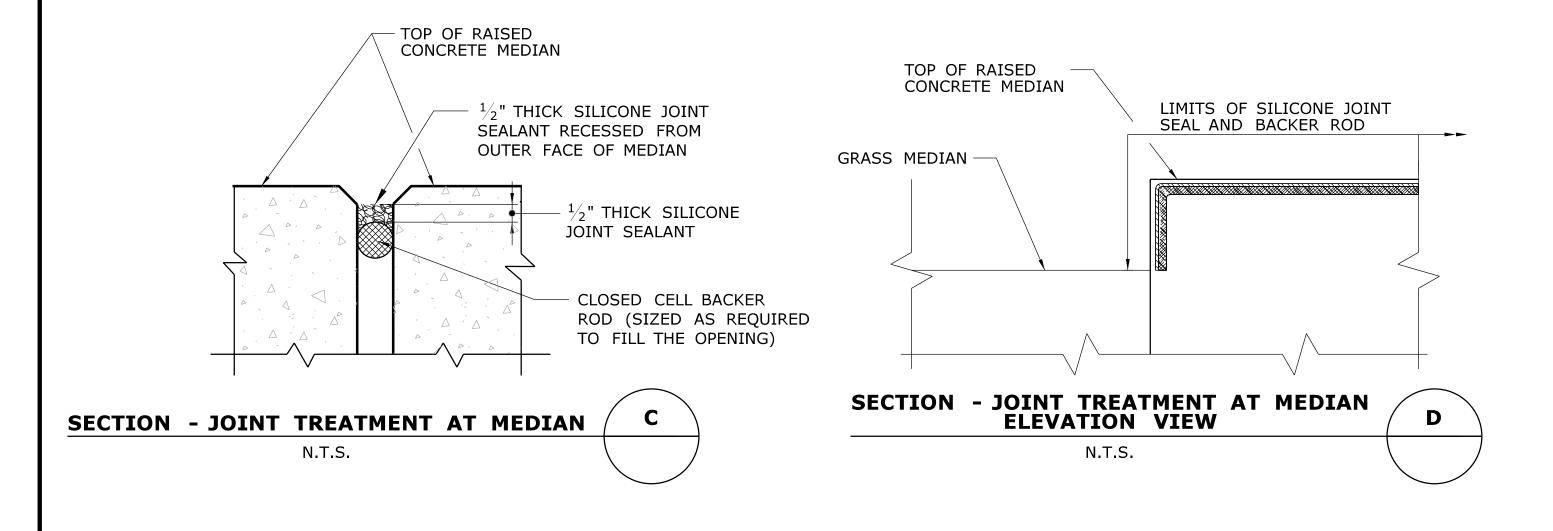
N.T.S.

		DESIGNER/DRAFTER:		SIGNATURE/	PROJECT TITLE:	TOWN:	PROJECT NO.
	- THI	HE INFORMATION, INCLUDING ESTIMATED JPC		BLOCK:	DAVEMENT DRECERVATION	MONTVILLE & NORWICH	85-142
	- QU. SH	UANTITIES OF WORK, SHOWN ON THESE CHECKED BY:	STATE OF CONNECTICUT	OFFICE OF ENGINEERING	PAVEMENT PRESERVATION		DRAWING NO.
	- INV	NO WAY WARRANTED TO INDICATE	STATE OF CONNECTION	OTTION OF ENGLISHED			- S-3
-   -	- THI	HE CONDITIONS OF ACTUAL QUANTITIES	DEPARTMENT OF TRANSPORTATION	APPROVED BY:	ON I-395	DRAWING TITLE:	3-3
	_ OF	F WORK WHICH WILL BE REQUIRED.	DEPARTMENT OF TRANSPORTATION			ASPHALTIC PLUG EXP	SHEET NO.
	-	SCALE AS NOTED		The state of the s			04.03
REV. DATE	REVISION DESCRIPTION SHEET NO. Plot	otted Date: 11/20/2012	Filename:\85-142_DRAWING_NO_S-3_ASPHALTIC_PLUG_JOINT_SYSTEM_DETAILS.dgn	The state of the s		JOINT SYSTEM DETAILS	



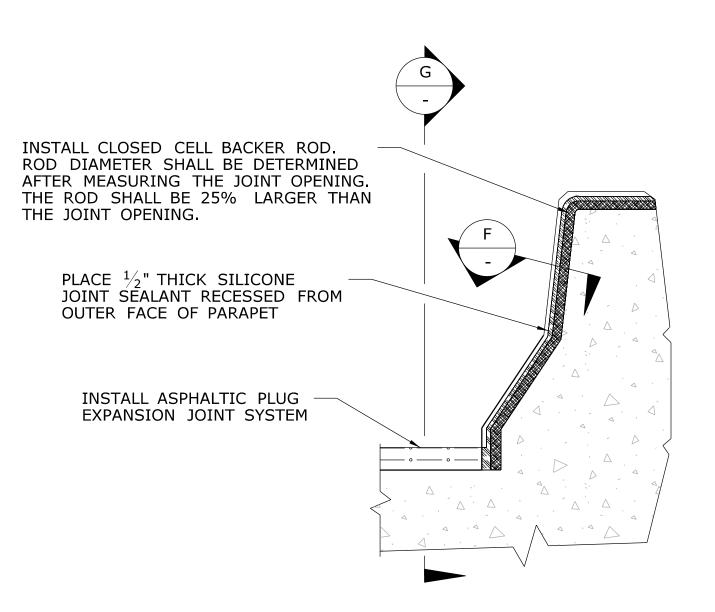
#### PLAN - PARAPET AND RAISED CONCRETE MEDIAN **JOINT DETAILS**

N.T.S.



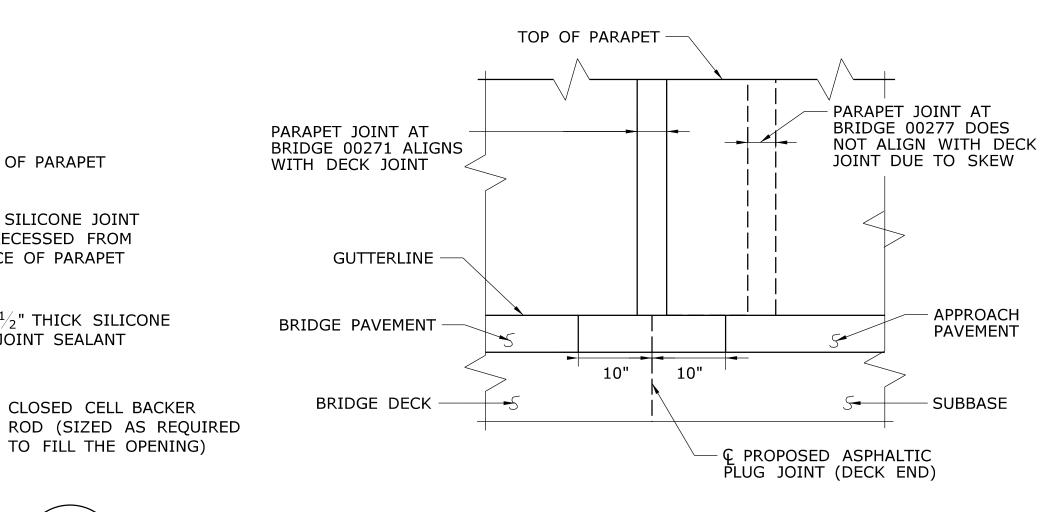
#### NOTES FOR SEALING JOINTS

- ANY EXISTING BACKER ROD AND JOINT SEALANT SHALL BE COMPLETELY REMOVED.
- 2. SURFACES OF CONCRETE ALONG JOINT SHALL BE CLEANED BY ABRASIVE BLAST CLEANING. SURFACES TO WHICH SILICONE SEALANT WILL ADHERE SHALL BE FREE OF DUST AND LOOSE OR DETERIORATED CONCRETE BEFORE INSTALLING BACKER ROD AND SILICONE JOINT SEAL.
- 3. COST FOR SEALING JOINT IN MEDIAN TO BE PAID AS "REPLACE JOINT SEAL".
- COST FOR SEALING PARAPET JOINTS TO BE INCLUDED FOR PAYMENT WITH "ASPHALTIC PLUG EXPANSION JOINT SYSTEM".





N.T.S.



**SECTION - JOINT TREATMENT AT PARAPET** BRIDGE NOS. 00271 & 00277

N.T.S.

- INSIDE FACE OF PARAPET

 $\frac{1}{2}$ " THICK SILICONE JOINT SEALANT RECESSED FROM

"THICK SILICONE

CLOSED CELL BACKER

TO FILL THE OPENING)

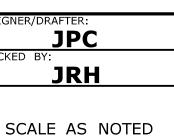
JOINT SEALANT

OUTER FACE OF PARAPET

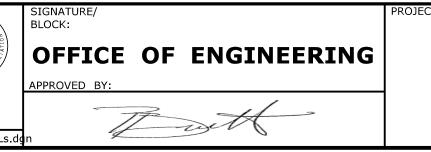
**SECTION - PARAPET JOINT TREATMENT** ELEVATION VIEW AT BRIDGE NOS. 00271 & 00277

N.T.S.

-	_	-	_	THE INFORMATION, INCLUDING ESTIMAT
-	-	-	-	QUANTITIES OF WORK, SHOWN ON THE SHEETS IS BASED ON LIMITED
-	-	-	-	INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE
-	_	-	-	THE CONDITIONS OF ACTUAL QUANTITIE
-	-	-	-	OF WORK WHICH WILL BE REQUIRED.
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REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 11/20/2012







**PAVEMENT PRESERVATION** ON I-395

MONTVILLE & NORWICH	PROJECT NO. <b>85-142</b>
DRAWING TITLE:	DRAWING NO. <b>S-4</b>
PARAPET AND MEDIAN JOINT SEALING DETAILS	04.04